

Summary of Changes to the Geometric Cross-Section chart and footnote addition.

Change -- Addition of 2ft shoulders in curbed sections.

Reference: Roadway Widths 2001 Green Book

- Minimum Width of Traveled Way and Shoulders Chart – Collector Roads and Streets (Urban) Pg, 439. “Vertical curbs with heights from 6 in or more, adjacent to the traveled way, should be offset by 1 to 2 ft from the edge of the traveled way. Where there is a combination curb and gutter construction, the gutter pan width, which is normally 1 to 2 ft, may provide the offset distance.”
- Curbs and Shoulders – Rural and Urban Arterials (Urban) Pg, 477. “Where provision of shoulders is not practical, and curbs are to be used, refer to the section on “Curb Placement” in Chapter 4.”
- Chapter 4 Curb Placement, Pg 326 – “For low-speed urban street conditions, curbs may be placed at the edge of the traveled way, although it is preferable that the curbs be offset 1 to 2 ft.”

Change -- Addition of footnote (k) – For discussion with agenda item on “sidewalks and bikes.”

Geometric Cross-Section for Two-Way Roads and Streets

DRAFT Changes in RED

Design Standards	Arterial											
	Principal ^(h)			Minor ^(h)				Collector ^(h)				
	Curbed ^(d)	Shouldered		Curbed ^(d)	Shouldered			Curbed ^(d)	Shouldered			
	DHV All	DHV Below 200	DHV 200 and Over	DHV All	DHV Below 100	DHV 100 to 200	DHV 201 and Over	DHV 400 and Over	ADT 400 to 750	ADT 751 to 1000	DHV 100 to 200	DHV 201 and Over
Right-of-Way	Not less than required for all design elements.											
Roadway Width ^{(a)(b)(g)(i)}	28 ft	36 ft	40 ft	28 ft	32 ft	36 ft	40 ft	28 ft	26 ft	28 ft	34 ft	40 ft
Lane Width:												
(A) Exterior ^{(b)(i)}	12 ft	12 ft	12 ft	12 ft	12 ft	12 ft	12 ft	12 ft	10 ft	10 ft	11 ft	12 ft
(B) Interior Thru ^(b)	11 ft	11 ft	11 ft	11 ft	11 ft	11 ft	11 ft	11 ft	10 ft	10 ft	11 ft	11 ft
(C) 2-Way Left Turn ^(b)	11 ft	11 ft	11 ft	11 ft	11 ft	11 ft	11 ft	11 ft	10 ft	10 ft	11 ft	11 ft
(D) Exclusive Turn ^(b)	11 ft	11 ft	11 ft	11 ft	11 ft	11 ft	11 ft	11 ft	10 ft	10 ft	11 ft	11 ft
(E) Parking	10 ft ^(c)			10ft ^(c)					(e)			
Shoulder Width ^{(f)(g)(i)(k)}	2ft	6 ft	8 ft	2ft	4 ft	6 ft	8 ft	2ft	3 ft	4 ft	6 ft	8 ft
Clear Zone/Side Slopes	AASHTO (j)											
Ditch Slope (in slope)	Slopes steeper than 4:1 should only be used when achieving a 4:1 slope is impractical.											

(a) For curbed, distance from face of curb to face of curb. For shouldered, distance from outside edge to outside edge of shoulder.

(b) May be reduced to minimum allowed by AASHTO.

(c) 8 feet may be acceptable when the lane is not likely to become a traffic lane in the foreseeable future.

(d) Curbed section is appropriate for urban setting.

(e) Industrial areas 8 feet to 10 feet. Residential areas 7 feet to 10 feet.

(f) When guardrail is necessary, provide 2 feet of widening or longer posts to ensure lateral support.

(g) For roads with traffic volumes of less than 400 ADT, the low volume road and street standards may be used.

(h) Federal functional classification defined by WSDOT (Planning and Programming Service Center).

(i) For guidance for one-way streets, see AASHTO, and the 1991 uniform fire code.

(j) When using AASHTO guidance for clear zone determinations, the designer should take into account all AASHTO materials relating to clear zone and project circumstances.

(k) If route has been identified as a local, state or regional significant bike route, the minimum shoulder width is 4 feet.

Note: Where adequate traffic data is not available to determine DHV, a conversion may be made as follows:

DHV = (.08 to .12) x ADT to change ADT to DHV

New Sidewalks (when provided)	<ul style="list-style-type: none"> • Minimum Width — 60 inches continuous clear width or 36 inches clear width with 60 inch by 60 inch clear passing spaces at 200-foot minimum intervals. • Surface — Firm, stable, and slip resistant. • Crossslopes — 1:50 (2%) maximum. • Running Slope — Minimum feasible slope consistent with slopes established by the adjacent roadway. • Buffer — Separation from vehicular ways by curbs or other barriers.
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